

10/708,586

IN THE CLAIMS:

Please cancel claims, 6-10, and 15-20, add new claims 21-28, and amend the remaining claims as follows:

1. (Currently Amended) An integrated circuit structure comprising:
a substrate having at least two types of crystalline orientations;
first-type transistors formed on first portions of said substrate having a first type of crystalline orientation;
second-type transistors formed on second portions of said substrate having a second type of crystalline orientation; and
a straining layer above said first-type transistors and said second-type transistors,
wherein said first portions of said substrate comprise a layer having said first type of crystalline orientation and a layer having said second type of crystalline orientation, and
wherein said second portions of said substrate comprise said layer having said second type of crystalline orientation and are devoid of said layer having said first type of crystalline orientation.
2. (Original) The structure in claim 1, wherein said first-type transistors and said second-type transistors include silicide regions and said straining layer is above said silicide regions.
3. (Currently Amended) The structure in claim 2, wherein each of said first-type transistors and said second-type transistors include source and drain regions formed within said substrate and a gate conductor formed over said substrate between said source and drain regions, and
wherein said silicide regions are formed over said gate conductor and said source and drain regions.
4. (Original) The structure in claim 1, wherein said first-type transistors are complementary to said second-type transistors.
5. (Original) The structure in claim 1, wherein said first portions of said substrate

10/708,586

comprise non-floating substrate portions and said second portions of said substrate comprise floating substrate portions.

6. (Canceled).

7. (Original) The structure in claim 1, wherein said first-type transistors and said second-type transistors comprise one of planar complementary metal oxide semiconductor (CMOS) transistors and fin-type field effect transistors (FinFETs).

8. (Currently Amended) An integrated circuit structure comprising:
a substrate having at least two types of crystalline orientations;
N-type field effect transistors (NFETs) formed on first portions of said substrate having a first type of crystalline orientation;
P-type field effect transistors (PFETs) formed on second portions of said substrate having a second type of crystalline orientation; and
a straining layer above said NFETs and said PFETs,
wherein one of said first portions and said second portions of said substrate comprise a layer having said first type of crystalline orientation and a layer having said second type of crystalline orientation, and
wherein the other of said first portions and said second portions of said substrate comprise a layer having one of said first type of crystalline orientation and said second type of crystalline orientation and are devoid of a layer having the other of said first type of crystalline orientation and said second type of crystalline orientation.

9. (Original) The structure in claim 8, wherein said NFETs and said PFETs include silicide regions and said straining layer is above said silicide regions.

10. (Currently Amended) The structure in claim 9, wherein each of said NFETs and

10/708,586

said PFETs include source and drain regions formed within said substrate and a gate conductor formed over said substrate between said source and drain regions, and

wherein said silicide regions are formed over said gate conductor and said source and drain regions.

11. (Original) The structure in claim 8, wherein said NFETs are complementary to said PFETs.

12. (Original) The structure in claim 8, wherein said first portions of said substrate comprise non-floating substrate portions and said second portions of said substrate comprise floating substrate portions.

13. (Canceled).

14. (Original) The structure in claim 8, wherein said NFETs and said PFETs comprise one of planar complementary metal oxide semiconductor (CMOS) transistors and fin-type field effect transistors (FinFETs).

15-20. (Canceled).

21. (New) The structure in claim 1, further comprising an insulator layer separating said layer having said first type of crystalline orientation from said layer having said second type of crystalline orientation.

22. (New) The structure in claim 8, further comprising an insulator layer separating said layer having said first type of crystalline orientation from said layer having said second type of crystalline orientation.

23. (New) An integrated circuit structure comprising:
a substrate having at least two types of crystalline orientations;
first-type transistors formed on first portions of said substrate having a first type of crystalline orientation,
second-type transistors formed on second portions of said substrate having a second type of crystalline orientation; and
wherein said first portions of said substrate comprise a layer having said first type of crystalline orientation and a layer having said second type of crystalline orientation, and
wherein said second portions of said substrate comprise said layer having said second type of crystalline orientation and are devoid of said layer having said first type of crystalline orientation.
24. (New) The structure in claim 23, further comprising an insulator layer separating said layer having said first type of crystalline orientation from said layer having said second type of crystalline orientation.
25. (New) The structure in claim 23, wherein said first-type transistors and said second-type transistors include silicide regions.
26. (New) The structure in claim 25, wherein each of said first-type transistors and said second-type transistors include source and drain regions formed within said substrate and a gate conductor formed over said substrate between said source and drain regions, and
wherein said silicide regions are formed over said gate conductor and said source and drain regions.
27. (New) The structure in claim 23, wherein said first-type transistors are

10/708,586

complementary to said second-type transistors.

28. (New) The structure in claim 23, wherein said first portions of said substrate comprise non-floating substrate portions and said second portions of said substrate comprise floating substrate portions.